

ABSTRACT

The present invention provides a method of producing rice lines that carry genes that have been modified by T-DNA/*GUS* based insertional mutagenesis. The *GUS* portion of the insert is promoterless, so that the *GUS* gene is expressed only when it is inserted into an active gene. In this way, organ preferential expression of various rice genes can be determined. The invention is also directed to the organ-preferential genes found by the T-DNA/*GUS* insertional mutagenesis method, as well as the proteins encoded by them. The invention also involves a database having information about the rice lines, such as the genes having the insert, the encoded proteins, the phenotypic characteristics of the mutant lines, and promoter activity of the tagged genes.